3GPP TSG-T #24 Seoul Korea 2nd – 4th June 2004

TP-040097

CR-Form-v7

CHANGE REQUEST											
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For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the % symbols.											
Proposed change affects: UICC apps# ME X Radio Access Network Core Network											
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									(1.10		
Reason for change: Although SMS has been used for Voice mail notification in many operators networks for some years, the current Voice Mail Notification via SMS is somewhat limited in the information conveyed to the mobile. This CR allows voice mail systems to convey via SMS to the user enhanced information regarding voice mail messages and voice mail box status such as a list of voice messages, the time a particular voice message was left, who it was from – if known, message duration etc.											
Summary of chan	<i>nge:</i>	Identification as interest one of the convey	ers ir raction w IE mor	oice Mail Info the User Da on with e-mail I value is def e detailed info oice mail mes	ta Heade systems. ined toget ormation	r alrea her w	ady b vith a	peing use number	d for op of sub p	tional feat parameters	ures such
Consequences if not approved:	Ж			nity to increas ce mail notific				•	e a user	s experien	ce using
Clauses affected:	* ¥	Table o	of IEI	values 9.2.3	.24 and n	ew su	ıb se	ection 9.2	.3.24.13	3	

Other specs affected:	¥	Y N X X X	Other core specifications	
Other comments:	ж		existing simpler Voice Mail Notific	eations currently specified in 23.040 have of problems for existing products.

9.2.3.23 TP-User-Data-Header-Indicator (TP-UDHI)

The TP-User-Data-Header-Indicator is a 1 bit field within bit 6 of the first octet of the following six PDUs:

- SMS-SUBMIT,
- SMS-SUBMIT-REPORT
- SMS-DELIVER,
- SMS-DELIVER-REPORT,
- SMS-STATUS-REPORT,
- SMS-COMMAND.

TP-UDHI has the following values.

Bit no. 6 0 The TP-UD field contains only the short message

The beginning of the TP-UD field contains a Header in addition to the short message.

9.2.3.24 TP-User Data (TP-UD)

The length of the TP-User-Data field is defined in the PDU's of the SM-TL (see clause 9.2.2).

The length of the TP-User-Data field is defined in the PDU's of the SM-TL (see clause 9.2.2).

The TP-User-Data field may comprise just the short message itself or a Header in addition to the short message depending upon the setting of TP-UDHI.

Where the TP-UDHI value is set to 0 the TP-User-Data field comprises the short message only, where the user data can be 7 bit (default alphabet) data, 8 bit data, or 16 bit (UCS2 [24]) data.

Where the TP-UDHI value is set to 1 the first octets of the TP-User-Data field contains a Header in the following order starting at the first octet of the TP-User-Data field.

Irrespective of whether any part of the User Data Header is ignored or discarded, the MS shall always store the entire TPDU exactly as received.

FIELD		LENGTH
Length of User Data Header	1 octet	
Information-Element-Identifier "A"	1 octet	
Length of Information-Element "A"	1 octet	
Information-Element "A" Data		0 to "n" octets
Information-Element-Identifier "B"		1 octet
Length of Information-Element "B"	1 octet	
Information-Element "B" Data		0 to "n" octets
Information-Element-Identifier "X"		1 octet

```
Length of Information-Element "X" 1 octet

Information-Element "X" Data 0 to "n" octets
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The diagram below shows the layout of the TP-User-Data-Length and the TP-User-Data for uncompressed GSM 7 bit default alphabet data. The UDHL field is the first octet of the TP-User-Data content of the Short Message.

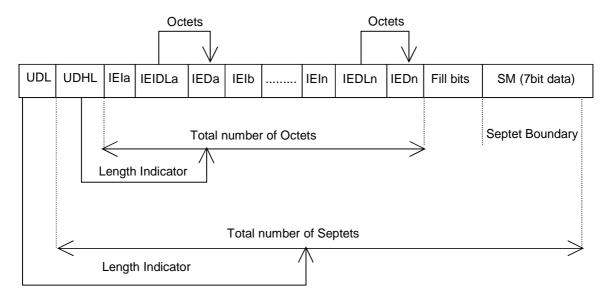


Figure 9.2.3.24 (a)

The diagram below shows the layout of the TP-User-Data-Length and the TP-User-Data for uncompressed 8 bit data or uncompressed UCS2 data. The UDHL field is the first octet of the TP-User-Data content of the Short Message.

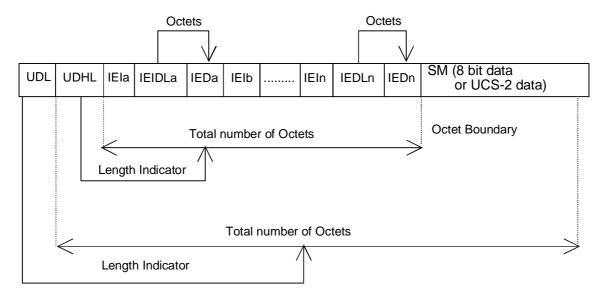


Figure 9.2.3.24 (b)

The diagram below shows the layout of the TP-User-Data-Length and the TP-User-Data for compressed GSM 7 bit default alphabet data, compressed 8 bit data or compressed UCS2 data. The UDHL field is the first octet of the TP-User-Data content of the Short Message.

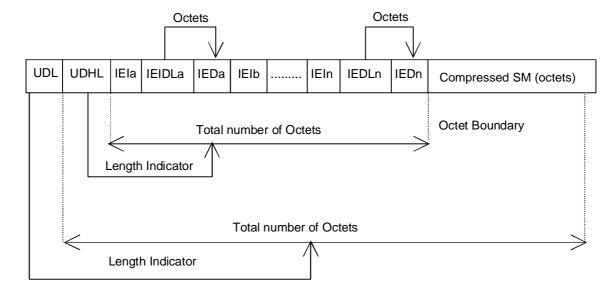


Figure 9.2.3.24 (c)

The definition of the TP-User-Data-Length field which immediately precedes the "Length of User Data Header" is unchanged and shall therefore be the total length of the TP-User-Data field including the Header, if present. (see 9.2.3.16).

The "Length-of-Information-Element" fields shall be the integer representation of the number of octets within its associated "Information-Element-Data" field which follows and shall not include itself in its count value.

The "Length-of-User-Data-Header" field shall be the integer representation of the number of octets within the "User-Data-Header" information fields which follow and shall not include itself in its count or any fill bits which may be present (see text below).

Information Elements may appear in any order and need not follow the order used in the present document. Information Elements are classified into 3 categories as described below.

- SMS Control identifies those IEIs which have the capability of dictating SMS functionality.
- EMS Control identifies those IEIs which manage EMS Content IEIs.
- EMS Content identifies those IEIs containing data of a unique media format.

It is permissible for certain IEs to be repeated within a short message, or within a concatenated message. There is no restriction on the repeatability of IEs in the EMS Content classification. The repeatability of SMS Control and EMS Control IEs is determined on an individual basis. See the IE table below for the repeatability of each IE.

In the event that IEs determined as not repeatable are duplicated, the last occurrence of the IE shall be used. In the event that two or more IEs occur which have mutually exclusive meanings (e.g. an 8bit port address and a 16bit port address), then the last occurring IE shall be used.

If the length of the User Data Header is such that there are too few or too many octets in the final Information Element then the whole User Data Header shall be ignored.

If any reserved values are received within the content of any Information Element than that part of the Information Element shall be ignored.						

The Information Element Identifier octet shall be coded as follows:

VALUE	MEANING	Classification	Repeatability
(hex)			
00	Concatenated short messages, 8-bit reference number	SMS Control	No
01	Special SMS Message Indication	SMS Control	Yes
02	Reserved	N/A	N/A
03	Value not used to avoid misinterpretation as <lf> character</lf>	N/A	N/A
04	Application port addressing scheme, 8 bit address	SMS Control	No
05	Application port addressing scheme, 16 bit address	SMS Control	No
06	SMSC Control Parameters	SMS Control	No
07	UDH Source Indicator	SMS Control	Yes
08	Concatenated short message, 16-bit reference number	SMS Control	No
09	Wireless Control Message Protocol	SMS Control	Note 3
0A	Text Formatting	EMS Control	Yes
0B	Predefined Sound	EMS Content	Yes
0C	User Defined Sound (iMelody max 128 bytes)	EMS Content	Yes
0D	Predefined Animation	EMS Content	Yes
0E	Large Animation (16*16 times 4 = 32*4 =128 bytes)	EMS Content	Yes
0F	Small Animation (8*8 times 4 = 8*4 = 32 bytes)	EMS Content	Yes
10	Large Picture (32*32 = 128 bytes)	EMS Content	Yes
11	Small Picture (16*16 = 32 bytes)	EMS Content	Yes
12	Variable Picture	EMS Content	Yes
13	User prompt indicator	EMS Control	Yes
14	Extended Object	EMS Content	Yes
15	Reused Extended Object	EMS Control	Yes
16	Compression Control	EMS Control	No
17	Object Distribution Indicator	EMS Control	Yes
18	Standard WVG object	EMS Content	Yes
19	Character Size WVG object	EMS Content	Yes
1A	Extended Object Data Request Command	EMS Control	No
1B-1F	Reserved for future EMS features (see subclause 3.10)	N/A	N/A
20	RFC 822 E-Mail Header	SMS Control	No
21	Hyperlink format element	SMS Control	Yes
22	Reply Address Element	SMS Control	No
23	Enhanced Voice Mail Information	SMS Control	No
24 – 6F	Reserved for future use	N/A	N/A
70 – 7F	(U)SIM Toolkit Security Headers	SMS Control	Note 1
80 – 9F	SME to SME specific use	SMS Control	Note 2
A0 – BF	Reserved for future use	N/A	N/A
C0 – DF	SC specific use	SMS Control	Note 2
E0 – FF	Reserved for future use	N/A	N/A

Note 1: The functionality of these IEIs is defined in 3GPP TSG 23.048 [28], and therefore, the repeatability is not within the scope of this document and will not be determined here.

9.2.3.24.13 Enhanced Voice Mail Information

Enhanced Voice Mail Information allows a Voice Mail system to convey to a mobile subscriber, comprehensive information regarding individual voice mail messages and mailbox status.

Enhanced Voice Mail Information has two types of Information Element Data

Note 2: The functionality of these IEIs is used in a proprietary fashion by different SMSC vendors, and therefore, are not within the scope of this technical specification.

Note 3: The functionality of these IEIs is defined by the WAP Forum and therefore the repeatability is not within the scope of this document and will not be determined here.

- Enhanced Voice Mail Notification which conveys to the MS information regarding newly deposited Voice Mail messages and Voice Mailbox Status
- Enhanced Voice Mail Delete Confirmation which allows an MS to maintain Voice mailbox status
 information synchronisation between the MS and the Voice Mailbox in the event of Voice Mail
 Message deletion.

The first 'bit' of the Enhanced Voice Mail Information Element Data is known as Enhanced Voice Mail PDU Type and discriminates between whether the Enhanced Voice Mail Information PDU is an Enhanced Voice Mail Notification or an Enhanced Voice Mail Delete Confirmation.

9.2.3.24.13.1 Enhanced Voice Mail Notification

The Enhanced Voice Mail Notification Information Element Data has the following format where the parameters are in strict order following the IEDL. All parameters are mandatory except where otherwise specified in the description for each parameter. The Enhanced Voice Mail Notification IEI and its associated IEDL and IED shall be complete within a single UDH

In the event of a contradiction between Enhanced Voice Mail Notification and either the DCS (23.038) [9] indicating Voicemail Message Waiting or the Special SMS Message Indication (9.2.3.24.2) indicating Voice Message Waiting or both then the Enhanced Voice Mail Notification specified here shall take precedence.

Parameter	Parameter Length	Mandatory/Optio
ENHANCED_VOICE_MAIL_PDU_TYPE	Bit 0 Octet 1	<u>M</u>
RESERVED_FOR_FUTURE_USE	Bits 23 Octet 1	<u>M</u>
SM_STORAGE	Bit 4 Octet 1	<u>M</u>
VM_MAILBOX_ALMOST_FULL	Bit 5 Octet 1	<u>M</u>
VM_MAILBOX_FULL	Bit 6 Octet 1	<u>M</u>
OCTET_VM_MAILBOX_STATUS_EXTE NSION_INDICATOR	Bit 7 Octet 1	<u>M</u>
VM_MAILBOX_ACCESS_ADDRESS	Octets 2 n+2 (2	<u>M</u>
NUMBER_OF_VOICE_MESSAGES	Bits 07 Octet n+3	<u>M</u>
NUMBER_OF_VM_NOTIFICATIONS	Bits 04 Octet n+4	<u>M</u>
RESERVED_FOR_FUTURE_USE	Bits 57 Octet n+4	<u>M</u>
VM_MAILBOX_STATUS_EXTENSION_L ENGTH	<u>1 Octet</u> (3	<u>C</u>
VM_MAILBOX_STATUS_EXTENSION_D ATA	1 or more Octets (3	<u>C</u>
VM_MESSAGE_ID (1	Bits 015 Octets n+5n+6	M
VM_MESSAGE_LENGTH (1	Bits 07 Octet n+7	<u>M</u>
VM_MESSAGE_RETENTION_DAYS (1	Bits 04 Octet n+8	<u>M</u>
RESERVED_FOR_FUTURE_USE (1	Bit 5 Octet n+8	<u>M</u>
VM_MESSAGE_PRIORITY_INDICATION (1	Bit 6 Octet n+8	<u>M</u>
OCTET_VM MESSAGE EXTENSION_IN DICATOR (1	Bit 7 Octet n+8	<u>M</u>
VM_MESSAGE_CALLING_LINE_IDENTI TY (1	Octets n+9 n+9+m (2	M
VM MESSAGE EXTENSION LENGTH (1	<u>1 Octet</u> (3	<u>C</u>
VM MESSAGE EXTENSION DATA (1	1 or more Octets (3	<u>C</u>

NOTE 1. This sequence of parameters are repeated a number of times according to the number of Voice Mail notifications conveyed in this IE.

NOTE:2 'n' and 'm' denote the number of octets required for the VM_MAILBOX_ACCESS_ADDRESS and the

VM_CALLING_LINE_IDENTITY as appropriate including the Address-Length, Type-of-address and Address-value See 9.1.2.5.

NOTE:3

The Conditional Octets are excluded from the Octet count in the table in this release because no extensions are defined in this release.

ENHANCED_VOICE_MAIL_PDU_TYPE This parameter shall be set to 0 to specify that the following

Information Element Data Parameters is an Enhanced Voice

Mail Notification.

RESERVED_FOR_FUTURE_USE This parameter is set to 0 and is reserved for future use.

SM_STORAGE This parameter shall be set to 0 to indicate that this SM shall

be discarded after evaluating its contents; otherwise it shall be set to a 1 to indicate to the MS that this SM shall be stored in

the ME or the USIM.

VM_MAILBOX_ALMOST_FULL This parameter shall be set to 1 if the Voice Mailbox in the

Voice Mail system is almost full; otherwise this field shall be set to 0. The point at which the voice mailbox is considered

almost full is Voice Mail System specific.

VM_MAILBOX_FULL This parameter shall be set to 1 if the Voice Mailbox in the

Voice Mail system is full; otherwise this field shall be set to 0.

OCTET_EXTENSION VM MAILBOX STATUS EXTENSION INDICATOR In this release,

this parameter shall be set to 0. This parameter shall be set to 1 to indicate that a

VM MAILBOX STATUS EXTENSION LENGTH

parameter is present in this PDU.

This parameter shall be set to 0 to indicate that the following Octet is the VM_MAILBOX_ACCESS_ADDRESS. This

parameter is set to a 1 to indicate that additional octets precede

the VM_MAILBOX_ACCESS_ADDRESS.

NOTE: Additional octets are not yet defined but may be

defined later by 3GPP. Any additional octets shall have their bit 7set to 0 so that implementations complying to this release shall be able to identify the

VM_MAILBOX_ACCESS_ADDRESS by virtue of the fact that bit 7 in its first octet is always set to 1 (see 9.1.2.5 SM TL

format) and thus ignore the preceding additional octets added

in later releases.

VM_MAILBOX_ACCESS_ADDRESS

This parameter shall contain the address to be used by the mobile subscriber to access the mobile subscribers Voice

Mailbox. This parameter coding shall comply with the the SM-TL address format specified in 9.1.2.5 above.

NUMBER_OF_VOICE_MESSAGES

This octet shall contain a value in the range 0 to 255 indicating the current number of Voice Mail messages that are unread. The value 255 shall be taken to mean 255 or greater. The NUMBER_OF_VOICE_MESSAGES shall be stored on the USIM in accordance with the procedure for storage of Message Waiting Indication Status described in Special SMS Message Indication (9.2.3.24.2).

NUMBER_OF_VM_NOTIFICATIONS

This parameter has a range 0 to 15. This parameter shall indicate the number of specific Voice Message notifications to follow within this IE.

RESERVED FOR FUTURE USE

This parameter shall be set to 0 and is reserved for future use.

VM MAILBOX STATUS EXTENSION LENGTH

LENGTH This parameter shall be set to the number of additional octets that immediately follow. This parameter has a value in the range 0 to 255. The presence of this parameter is conditional on the setting of VM_MAILBOX_STATUS_EXTENSION_INDICATOR in this PDU.

VM MAILBOX STATUS EXTENSION DATA This parameter comprises a number of additional

octets allowing additional VM mailbox generic status parameters to be conveyed in this PDU. Additional octets are not defined in this release but may be defined later by 3GPP. This parameter is conditional on the presence of VM_MAILBOX_EXTENSION_LENGTH

VM_MESSAGE_ID

This parameter shall be set to the message ID of the Voice Mail message in this specific Voice Message notification. This parameter is binary and has a range 0 to 65535, modulus 65536. It is the responsibility of the Voice Mail system to set this parameter to uniquely identify a Voice Mail message within the modulus.

VM_MESSAGE_LENGTH

This parameter shall be set to the length of the Voice Mail message in this notification in seconds. This parameter has a range 0 to 255. For voice mail messages that are longer than 255 seconds, this parameter shall be set to its maximum 255.

VM_MESSAGE_RETENTION_DAYS

This parameter shall be set to the number of days after which the specific Voice Mail message in this notification is anticipated to be automatically deleted from the Voice Mail system timed from the GSM Timestamp (TP-SCTS 9.2.3.11) for this Enhanced Voice Mail Notification. This parameter has a range 0 to 31. For Voice Mail messages that have a longer

retention time than 31 days, this parameter shall be set to its maximum 31.

NOTE: The GSM Timestamp is the time that the SC received the SM from the Voice Mail system which is not necessarily the time that the voice message was deposited into the Voice Mail system.

RESERVED FOR FUTURE USE

This parameter is set to 0 and is reserved for future use.

VM_MESSAGE_PRIORITY_INDICATION

This parameter shall be set to 1 to indicate that the specific Voice Mail message in this notification held in the Voice Mailbox is urgent; otherwise the parameter shall be set to 0.

OCTET_EXTENSION_VM_MESSAGE_EXTENSION_INDICATOR In this release, this parameter shall

be set to 0. This parameter shall be set to a 1 to indicate that a

VM_MESSAGE_EXTENSION_LENGTH parameter is

present in this PDU.

This parameter shall be set to a 0 to indicate that the following Octet—is—the—VM_CALLING_LINE_IDENTITY.—This parameter is set to a 1 to indicate that additional octets precede the VM_CALLING_LINE_IDENTITY.

NOTE: Additional octets are not yet defined but may be defined later by 3GPP. Any additional octets shall have their bit 7set to 0 so that implementations complying to this release shall be able to identify the VM_CALLING_LINE_IDENTITY by virtue of the fact that bit 7 in its first octet is always set to 1 (see 9.1.2.5 SM-TL format) and thus ignore the preceding additional octets added in later releases.

VM MESSAGE CALLING LINE IDENTITY

TITY This parameter shall contain the address to be used by the mobile subscriber to contact the originator of the specific Voice Mail message in this notification. Where the CLI is not available then the coding of this parameter shall indicate that there is no address. i.e The length indicator in this parameter shall be set to 0

This parameter coding shall comply with the SM-TL address format specified in 9.1.2.5 above.

VM MESSAGE EXTENSION LENGTH

This parameter shall be set to the number of additional octets that immediately follow. This parameter has a value in the range 0 to 255. The presence of this parameter is conditional on the setting of VM MESSAGE EXTENSION INDICATOR in this PDU.

VM MESSAGE EXTENSION DATA

This parameter comprises a number of additional octets allowing additional voicemail message specific parameters to be conveyed in this PDU. Additional octets are not defined in this release but may be defined later by 3GPP. This parameter is conditional on the presence of VM_MESSAGE_EXTENSION_LENGTH

9.2.3.24.13.2 Enhanced Voice Mail Delete Confirmation

The Enhanced Voice Mail Delete Confirmation Information Element Data contains synchronization information. A Voice Mail system may send an Enhanced Voice Mail Delete Confirmation in order to indicate to the ME that certain voice mail messages that have been deleted and to indicate the updated status of the Voice Mailbox.

The Enhanced Voice Mail Delete Confirmation Information Element Data has the following format where the parameters are in strict order following the IEDL. All parameters are mandatory except where otherwise specified in the description for each parameter. The Enhanced Voice Mail Delete Confirmation IEI and its associated IEDL and IED shall be complete within a single UDH

:

Parameter	Parameter Length	Mandatory/Conditi
ENHANCED_VOICE_MAIL_PDU_TYPE	Bit 0 Octet 1	<u>M</u>
RESERVED_FOR_FUTURE_USE	Bits 13 Octet 1	<u>M</u>
SM_STORAGE	Bit 4 Octet 1	<u>M</u>
VM_MAILBOX_ALMOST_FULL	Bit 5 Octet 1	<u>M</u>
VM_MAILBOX_FULL	Bit 6 Octet 1	<u>M</u>
OCTET_VM MAILBOX STATUS EXTE NSION_INDICATOR	Bit 7 Octet 1	<u>M</u>
VM_MAILBOX_ACCESS_ADDRESS	Octets 2n+2 (2	<u>M</u>
NUMBER_OF_VOICE_MESSAGES	Bits 07 Octet n+3	<u>M</u>
NUMBER_OF_VM_DELETES	Bits 04 Octet n+4	<u>M</u>
RESERVED_FOR_FUTURE_USE	Bits 5 <u>6</u> 7 Octet n+4	<u>M</u>
VM MAILBOX STATUS EXTENSION L ENGTH	<u>1 Octet</u> (3	<u>C</u>
VM_MAILBOX_STATUS_EXTENSION_D ATA	1 or more Octets (3	<u>C</u>
VM_MESSAGE_ID (1	Octets n+5n+6	<u>M</u>
RESERVED_FOR_FUTURE_USE (1	Bits 06 Octet n+7	<u>M</u>
OCTET_VM MESSAGE EXTENSION IN DICATOR (1	Bit 7 Octet n+7	<u>M</u>
VM MESSAGE EXTENSION LENGTH (1	<u>1 Octet</u> (3	<u>C</u>
VM MESSAGE EXTENSION DATA (1	1 or more Octets (3	<u>C</u>

NOTE 1. This sequence of parameters are repeated a number of times according to the number of Voice Mail Delete Confirmations conveyed in this IE

NOTE:2 'n' denotes the number of octets required for the VM_MAILBOX_ACCESS_ADDRESS including the Address-Length, Type-of-address and Address-value See 9.1.2.5

NOTE:3 The Conditional Octets are excluded from the Octet count in the table in this release because no extensions are defined in this release

ENHANCED_VOICE_MAIL_PDU_TYPE This parameter shall be set to 1 to specify that the following

Information Element Data is an Enhanced Voice Mail Delete

Confirmation

RESERVED_FOR_FUTURE_USE This parameter is set to 0 and is reserved for future use.

SM_STORAGE See section 9.2.3.24.13.1

VM_MAILBOX_ALMOST_FULL See section 9.2.3.24.13.1

VM_MAILBOX_FULL See section 9.2.3.24.13.1

OCTET_EXTENSION VM MAILBOX STATUS EXTENSION INDICATOR

In this release,

this parameter shall be set to 0. This parameter shall be set to 1
to indicate that a

VM_MAILBOX_STATUS_EXTENSION_LENGTH

parameter is present in this PDU.

This parameter shall be set to 0 to indicate that the following Octet is the VM_MAILBOX_ACCESS_ADDRESS. This parameter is set to a 1 to indicate that additional octets precede the VM_MAILBOX_ACCESS_ADDRESS.

NOTE: Additional octets are not yet defined but may be defined later by 3GPP. Any additional octets shall have their bit 7set to 0 so that implementations—complying to this release—shall—be—able—to—identify—the VM_MAILBOX_ACCESS_ADDRESS—by virtue of the fact that—bit—7—in—its—first—octet—is always set to 1 (see 9.1.2.5 SM TL format) and thus ignore the preceding additional octets added in later releases.

VM_MAILBOX_ACCESS_ADDRESS

See section 9.2.3.24.13.1

NUMBER OF VOICE MESSAGES

See section 9.2.3.24.13.1

NUMBER_OF_VM_DELETES

This parameter has a range 0 to 63. This parameter shall indicate the number of VM_MESSAGE_ID's that follow in

this IE

RESERVED FOR FUTURE USE

This parameter is set to 0 and is reserved for future use.

VM MAILBOX STATUS EXTENSION LENGTH

LENGTH This parameter shall be set to the number of additional octets that immediately follow. This parameter has a value in the range 0 to 255. The presence of this parameter is conditional on the setting of VM_MAILBOX_STATUS_EXTENSION_INDICATOR in this PDU.

VM MAILBOX STATUS EXTENSION DATA This parameter comprises a number of additional

octets allowing additional VM mailbox generic status parameters to be conveyed in the PDU. Additional octets are not defined in this release but may be defined later by 3GPP. This parameter is conditional on the presence of VM_MAILBOX_EXTENSION_LENGTH

VM_MESSAGE_ID

This parameter shall be set to the message ID of the specific voice mail message(s) whose deletion is being confirmed. The range of this parameter is defined in section 9.2.3.24.13.1 and for a specific voice mail message the value of this parameter

shall be identical to that used for the VM Notification. This parameter is repeated according to the number of voice mail message deletions being confirmed. RESERVED FOR FUTURE USE This parameter is set to 0 and is reserved for future use. This parameter is repeated according to the number of voice mail message deletions being confirmed. OCTET EXTENSION VM MESSAGE EXTENSION INDICATOR In this release, this parameter shall be set to 0.— This parameter shall be set to a 1 to indicate that a VM_MESSAGE_EXTENSION_LENGTH parameter is present in this PDU. This parameter shall be set to a 0 to indicate that no Voice Mail specific parameters follow. This parameter is set to a 1 to indicate that additional Voice Mail specific parameters follow. NOTE: Additional octets are not vet defined but may be defined later by 3GPP. VM MESSAGE EXTENSION LENGTH This parameter shall be set to the number of additional octets that immediately follow. This parameter has a value in the range 0 to 255. The presence of this parameter is conditional setting the VM MESSAGE EXTENSION INDICATOR in this PDU This parameter comprises a number of additional octets VM MESSAGE EXTENSION DATA allowing additional voicemail message specific parameters to be conveyed in this PDU. Additional octets are not defined in this release but may be defined later by 3GPP. This parameter conditional presence the VM_MESSAGE_EXTENSION_LENGTH

9.2.3.25 TP-Reject-Duplicates (TP-RD)

The TP-Reject-Duplicates is a 1 bit field located within bit 2 of the first octet of SMS-SUBMIT and has the following values.

Bit no. 2: 0 Instruct the SC to accept an SMS-SUBMIT for an SM still held in the SC which has the same TP-MR and the same TP-DA as a previously submitted SM from the same OA.

1 Instruct the SC to reject an SMS-SUBMIT for an SM still held in the SC which has the same TP-MR and the same TP-DA as the previously submitted SM from the same OA. In this case the response returned by the SC is as specified in 9.2.3.6..